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ROUTING

1. ~~Mike Sanderson~~
2. ~~DO~~ } FYI
3. ~~Lynch~~ } ~~RLS~~
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COMMENTS:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII
726 MINNESOTA AVENUE
KANSAS CITY, KANSAS 66101

MAY 1 1990

MEMORANDUM

SUBJECT: North End Site
Kansas City, Missouri

FROM: Ronald E. King
Chief, REML/SPFD/WSTM

TO: Baerbel L. Schiller
Associate Regional Counsel

THROUGH: Robert L. Morby
Chief, SPFD/WSTM

Attached is a revised draft Removal Action Decision Document (RADD). The RADD has been redrafted in response to Dan Shiel's comments and using the format described for Action Memorandums in the Headquarters guidance of July 1989. A copy of this guidance is attached for your reference.

We are requesting that CNSL review the revised RADD and concur or provide us with comments by COB May 4, 1990. Both the RADD and the Consent Order we have been negotiating with the potentially responsible party need to be final in order that this site is cleaned up before the Corps of Engineer's river channel enlargement project reaches the site.

Please contact me (at x7568) or Dave Crawford (at x7702) if there are any questions, or with your comments.

Attachments:

Draft Removal Action Decision Document (RADD)
July 1989 Action Memorandum Guidance (draft)

cc: Dan Shiel, CNSL
Ron McCutcheon, ENSV/EP&R/FIRE
Rowena Michaels, PBAF
Ron Ritter, CIGL
Mike Sanderson, RCRA

REMOVAL ACTION DECISION DOCUMENT

SITE NAME AND LOCATION

North End Site
Kansas City, Missouri

CERCLIS # MOD985768134

Alias or Alternate Site Names:
Union Wire Rope Fill Area
Armco North End Landfill

ENDANGERMENT FINDING

Conditions presently exist at the site, which if not addressed by implementing the response action selected in this Removal Action Decision Document (RADD), or by equivalent response actions, may lead to an imminent and substantial endangerment to human health, or welfare or the environment.

BACKGROUND

In April 1989, Armco Inc. (Armco) reported the existence of the site to the EPA and to the State of Missouri. Armco reported that they currently own the property and that it had been used for the disposal of industrial wastes. Industrial wastes, including sludges and dust containing lead, other metals and cyanide, were buried in shallow excavations and then covered with native soils (e.g. a "Landfill"). The landfill is adjacent to the Blue River. The land above the landfill has no current use.

Armco further reported that the U.S. Army Corps of Engineers (COE) was enlarging the channel of the adjacent Blue River to improve flood control in the floodplain. Such channel enlargement requires that the industrial wastes and any contaminated soil be removed from the land to be taken as part of the channel enlargement.

Armco reported that the land for the channel enlargement was being acquired for the COE by the City of Kansas City, Missouri, in which the site is located. City personnel confirmed this. When reporting the existence of the site to EPA and to the State of Missouri, Armco reported that they had agreed to clean up the site before the City becomes the owner of part of the site, and that they were making an offer to conduct this cleanup under the oversight of EPA and/or the State of Missouri.

SITE DESCRIPTION

The site is located adjacent to the Blue River approximately four (4.0) miles upriver of the confluence of the Blue and the Missouri Rivers. The site is located in the SE ¼ of the NW ¼ of Section 7, Township 48N, Range 32W in Jackson County, Missouri. The site is located approximately 50-100 feet west of where Manchester Avenue crosses the Blue River, in an industrialized section of Kansas City along the Blue River, north of 18th Street and south of 12th Street. The location of the site is shown in Figure 1, Site Location Map. Several industrial or manufacturing facilities are located near the site, including that of Armco and the former plant of the Union Wire Rope Company. There is very little residential development near the site, which is not readily accessible via foot from the nearest occupied residences.

SITE CHARACTERISTICS

Industrial and manufacturing facilities have been operated adjacent to the site by Armco and Union Wire Rope and by predecessor companies. Armco and Union Wire Rope Company were previously part of the same company, which operated a plant adjacent to the site for manufacturing wire rope. This plant generated the wastes disposed in the landfill.

When used for disposal, a variety of industrial wastes (including sludges and dusts) from the adjacent plant were transported to the site and buried in shallow excavations or trenches above the water table. Much of the site now lacks a growth of sustained vegetation. After it was no longer used for disposal, the buried wastes were covered with a rocky soil and miscellaneous debris. The site is not fenced, although the fence around the plant site to the south, the river to the north, the railroad bridge to the west and the elevated Manchester Bridge to the east tend to make the site relatively inaccessible by foot.

The landfill was not permitted by EPA or the State of Missouri under the Resource Conservation and Recovery Act (RCRA). Nor does it have RCRA interim status as a hazardous waste treatment, storage or disposal facility. The landfill was closed prior to the effective date of any RCRA regulations over such waste management. Because of the period in which it operated, the landfill was also not regulated by EPA, the State, or the City as a solid waste disposal facility.

The site is currently owned by Armco, which has agreed to conduct the cleanup. A portion of the site is to be acquired by the City of Kansas City, Missouri as part of the COE's river channel enlargement project. Armco has stated that they intend to sell the remainder of the site not acquired by the City. A buyer has not yet been identified. The current removal/response action is the first removal at this site.

The site is underlain by alluvial soils along the Blue River. Surface water drainage tends to flow toward the adjacent Blue River, as does the alluvial ground water beneath the site. There is no known use of ground water for human consumption in the site's immediate vicinity, nor of any down-gradient ground water, at risk of contamination by the site.

NPL STATUS

The site is not on EPA's National Priorities List (NPL) of hazardous waste sites. Nor is it proposed for the NPL. A hazard ranking system (HRS) score has not been calculated on the site and is not planned.

STATE AND LOCAL AUTHORITY ROLES

Either the EPA or the Missouri Department of Natural Resources (MDNR) can and does assume the role of lead agency for Superfund site cleanups in Missouri. The EPA and the MDNR have agreed that the EPA will be the lead agency for this action. It is expected that EPA will continue to be the lead agency on this site.

The State of Missouri has participated in several meetings with the EPA and Armco to discuss a strategy to address this site. The cleanup level for lead in soil established for the site was proposed by the State of Missouri (Department of Natural Resources, MDNR, and Department of Health, MDH). If, during the response action implementation, additional waste contaminants are identified at significant levels, the State will also be involved in establishing any additional contaminant action levels for the site. The State will continue to monitor the progress of the cleanup in order to make a final determination with respect to the State's Registry and will continue in its role of support agency.

The site is located in Kansas City, Missouri. The City attended some of the preliminary meetings with EPA, MDNR and Armco. The City is acquiring a portion of the site for the COE's river channel enlargement project. Before becoming the owner of the site, the City must assure that all necessary response actions have been implemented.

OTHER ACTIONS

The response action selected in this decision document is the first cleanup undertaken under the Superfund Program for this site.

The U.S. Army Corps of Engineers (COE) is enlarging and improving the channel of the adjacent Blue River to improve flood control. The enlarged river channel is expected to take part of the landfill site. Therefore wastes and contaminated soil must

be removed from the landfill before the COE begins channel enlargement excavation next to the site.

THREAT TO HUMAN HEALTH OR WELFARE OR THE ENVIRONMENT

Some of the wastes and materials disposed in this landfill contained relatively high concentrations of lead, and lower levels of zinc and cyanide, all of which are hazardous substances as defined by CERCLA §101 (14). Armco has provided the following information to EPA on the wastes disposed in the landfill:

TABLE I

MAXIMUM Contaminant Concentrations in Landfill Soil & Fill

Material Description	Contaminant Data			
	Total Lead	Total Zinc	EP Toxic Lead	Total Cyanide
	mg/kg	mg/kg	mg/l	mg/kg
black dust/soil	6700	2100	1.6	ND (1.0)
brown silty clay	340	450	ND (0.1)	ND (1.0)
black dust	26,000	4300	14	ND (1.0)
black powder	130,000	1100	1.7	ND (1.0)
black dust & scale	710	250	0.2	ND (1.0)
misc. fill	590	250	0.1	ND (1.0)
gray silty clay	23	84	ND (0.1)	ND (1.0)
white sandy material	52	73	ND (0.1)	13
black-red sand material	4700	2000	0.6	ND (1.0)

(ND= not detected with detection limits in parentheses.)

Some lead contamination of ground water on the site has been found, in concentrations up to 190 ug/l. Several volatile organic compounds (VOCs), which are hazardous substances under CERCLA §101 (14), have been found in onsite ground water. The following are the maximum concentrations of those VOCs which have been found in onsite ground water on at least one occasion above 100 ug/l: 820 ug/l 1,1,1-trichloroethane, 630 ug/l 1,1-dichloroethane, 770 ug/l chloroethane, 250 ug/l trans-1,2-dichloroethene, 930 ug/l 1,1-dichloroethene, and 180 ug/l vinyl chloride. Additional VOCs and some metals have been found in onsite ground water at lower concentrations (below 100 ug/l).

The source of the VOC contaminants found in the ground water has not yet been determined. As part of this response action, Armco has agreed to conduct additional ground water sampling and analyses to determine if this site is the source of the VOCs found in the ground water. (It is possible that the VOCs were released from other properties and migrated in ground water to the site.)

The site is not currently used for residential uses. Nor are there any occupied residences in the immediate vicinity of the site. The nearest occupied residence is approximately 1000-1500 feet to the northwest, on the other side of the river. Land uses in the immediate vicinity of the site are primarily industrial and include the former Union Wire Rope plant and several scrap and salvage operations.

If the site were to be used as a residence, the concentrations of lead in the soil could pose unacceptable threats to human health via direct contact exposures related to the incidental or accidental consumption of lead-contaminated soil or material. Children are particularly prone to the incidental ingestion of soil in a phenomenon known as "pica" (defined as an abnormal tendency to eat soil, chalk, paint chips, or other non-food debris or material).

Lead is the principal site contaminant. Lead is systemically toxic to humans when ingested or inhaled. To some extent the toxicity of lead is dependent upon the form of lead found (including elemental lead, lead salts, organic lead, lead sulfate, lead oxide and other forms of lead). However, all forms of lead are toxic to some degree, and analyses of environmental samples for lead concentrations seldom identify the species of lead, since all forms of lead are treated as toxic. (The data EPA received from Armco on this site was for total lead and does not identify the species or form of lead.) Human exposure to lead can lead to serious, and sometimes irreversible, toxic effects on the central nervous system, the peripheral nervous system and on the kidneys. The most common adverse human health effects resulting from exposures to lead are retardation or developmental disabilities which occur in exposed children.

Lead is a heavy metal and tends to bioconcentrate in higher levels of the food chain. Lead, as other metals, is extremely persistent in the environment. Lead does not degrade to less toxic compounds either in the environment, or in organisms which have absorbed it. (However, some forms of lead, such as organic lead, can be converted to elemental lead.)

The Army Corps of Engineers (COE) will be enlarging or improving the Blue River channel adjacent to the site beginning with land acquisition in August 1990. The enlarged river channel will take part of the site. Unless the lead wastes and contaminated soil in the landfill have been removed, treated, or other

wise effectively controlled, potentially toxic levels of contamination could be released to the Blue River. Such releases could adversely affect aquatic organisms and fish in the river. Such releases could also lead to human exposures from the consumption of contaminated fish or from the consumption of downriver water from the Missouri River, if the contaminant releases were large enough. The dilution of any contaminant releases from the site with the large volumes of water in the Missouri River make it very unlikely that detectable concentrations of contaminants, attributable to this site, would result from releases from this site.

Contaminants could also be released to the air when the landfill is opened and the existing soil cover is removed, if dust is not effectively controlled. The release of contaminants to offsite air could then expose nearby human populations, although such exposures are limited by the lack of residences near the site. Effective dust control will prevent the release of any contaminants to the air.

Via the potential pathways described above, and unless effective response actions are implemented, the EPA has determined that this site may present an imminent and substantial endangerment to human health, or welfare or the environment.

Up to 190 ug/l of lead has been found in onsite ground water. The EPA has established 50 ug/l as the maximum contaminant level (MCL) for public drinking water supplies under its Safe Drinking Water Act. There are no public water supplies which obtain surface or ground water from the vicinity of the site.

There are also no known private drinking water wells in the vicinity of the site. The EPA often uses the established MCLs as advisory levels for private water supplies, which it does not regulate. Although the highest level of lead contamination found in ground water (190 ug/l) exceeds the MCL, no human exposure is expected to result, since there is no known use of ground water near the site for drinking and little potential for such use to develop.

There are no wetlands near the site or along the Blue River before it joins with the Missouri River, about four miles downriver of the site.

ENFORCEMENT

Armco is a potentially responsible party (PRP) on this site. Armco currently owns the property on which the landfill is located. Armco brought this site to the attention of EPA and the State of Missouri and has agreed to clean up the site under the oversight of EPA. Armco has provided all of the additional information which the EPA requested pursuant to its authority

under §104 of CERCLA. The EPA and Armco are negotiating a Consent Order under §106 of CERCLA, under which Armco will complete the cleanup. As part of this agreement, Armco has agreed to reimburse the EPA for its oversight costs.

Since Armco has agreed to implement the necessary response actions, the EPA has not sought to identify additional PRPs for the site.

PROPOSED ACTIONS

Armco has submitted a work plan for the removal and offsite disposal or treatment of the lead-contaminated wastes and soils. In summary the removal will consist of the following steps:

-The existing surface soil cover will first be removed to access the wastes and contaminated soil. Berming will contain water in the excavation which has contacted wastes or contaminated soil, and will prevent the entry of any surface water runon from entering the excavation and becoming contaminated.

-Wastes and contaminated soil will be placed in covered trucks or containers and transported to approved treatment or disposal facilities. Some of the wastes excavated are likely to be EP toxic and regulated as such under RCRA as hazardous wastes. Testing of such materials for EP toxicity will determine which materials or wastes need to be manifested, during transportation to treatment or disposal facilities, within the RCRA hazardous waste regulations.

-Once obviously contaminated wastes and soils have been removed from the excavation, underlying soils will be tested to determine if the cleanup level of 238 mg/kg has been met. If residual soils contain more than 238 mg/kg lead, additional soils will be removed for disposal until the cleanup level is not exceeded.

-Once the residual soils no longer exceed the action level, the excavation will be filled with clean soils up to the original and surrounding grade.

-Filled areas will be seeded with native vegetation to prevent or control erosion.

-Armco will install additional monitoring wells at the site. Armco will test ground water from existing and newly installed wells in order to identify the source of the VOC contamination, if on the site property. (Armco will not be required to characterize such contaminant sources if they do not own or lease the property, or if they did not generate or dispose the wastes or hazardous substances which released or are releasing the VOCs to ground water.)

The response action will be implemented as a removal. The site is not on the NPL and is not expected to be submitted as a candidate for the NPL. Therefore, the EPA does not necessarily expect to conduct or require remedial actions at the site. However, the EPA intends to periodically evaluate the effectiveness and adequacy of the removal response action, to determine if additional response actions are required. If effectively implemented, this response action should be wholly consistent with any subsequent removal or remedial action considered for the site.

APPLICABLE, OR RELEVANT AND APPROPRIATE REQUIREMENTS (ARARs)

The EPA has reviewed federal, state and local laws and regulations in order to identify those which may be applicable, or relevant and appropriate (ARAR) to the cleanup of this site. The following ARAR is identified for this site:

The State of Missouri has identified 238 mg/kg lead in soil as an ARAR for hazardous waste sites in Missouri. Sites in Missouri having soil or wastes containing this amount of lead have been determined by the State to pose a threat to human health via direct contact exposures, if the site were used as a residence. Sites containing lead in concentrations above 238 mg/kg are therefore placed on the State's Registry of Confirmed Abandoned or Uncontrolled Hazardous Waste Sites, in order to assure that future land uses are controlled to prevent unacceptable human exposures to lead.

The Land Disposal Regulations for hazardous wastes promulgated by EPA under the RCRA were also evaluated as a potential ARAR. The North End Site is not a RCRA-regulated facility. The wastes were disposed in the landfill prior to the effective date of the RCRA regulations. These regulations are therefore not applicable or enforceable.

Since currently generated and disposed wastes are regulated under the LDR, the LDR do appear to be relevant. However, the LDR are not appropriate for this site for the following reasons. During the removal, the lead concentrations in wastes and residual soil will be reduced to 238 mg/kg. This is a health-based level developed by the State of Missouri, with which the EPA agrees. Soil or debris containing this amount of lead or less is safe for any future land use, including residential. However, this level does not constitute a "clean closure" under RCRA, under which site contaminants are reduced to that of surrounding background soil (generally less than 100 mg/kg lead in Missouri, except in areas of lead mining). If this cleanup were conducted pursuant to the RCRA LDR, post-closure monitoring of ground water for lead might be required unless contaminant levels were reduced to background levels. Post-closure monitoring for lead will not be required at this site, since the RCRA LDR are not applicable (i.e. enforceable), and although relevant, not appropriate. Concentrations of 238 mg/kg lead in soil pose no direct contact

threat to public health even if the land were used for a residence, an unlikely occurrence. Human exposure to lead via the ground water route is also quite unlikely since there is no known use of ground water near the site for drinking. Therefore, the site does not warrant post-closure monitoring for lead, if the cleanup level of 238 mg/kg is met.

COST

Armco has agreed to implement the cleanup. Armco has developed a work plan for the cleanup and has estimated its costs of implementation to be $1,800,000 (+/- 15%). This estimate includes engineering, design, plan development, equipment, personnel, analytical and disposal fee costs.

The Armco cost estimate does not include EPA's oversight costs. The EPA estimates that, barring unforseen and unusual difficulties, it will be able to complete the oversight of this removal for between $10,000 and $20,000. As part of the Consent Administrative Order negotiated, Armco has agreed to reimburse EPA's oversight costs.

EXPECTED CHANGE IN THE SITUATION SHOULD NO ACTION BE TAKEN OR DELAYED

In August 1990, the U.S. Army Corps of Engineers will be enlarging the channel of the adjacent river, taking part of the site. If the wastes and contaminated soil have not been removed from the site before then, the following may occur:

-Lead contaminated wastes and soil could be released to the river and have an adverse impact on river water quality and upon river habitat.

-Onsite workers on the channel enlargement project could be exposed to lead.

-Other personnel onsite, including trespassers, could be exposed to lead contaminated wastes or soil then at the ground surface.

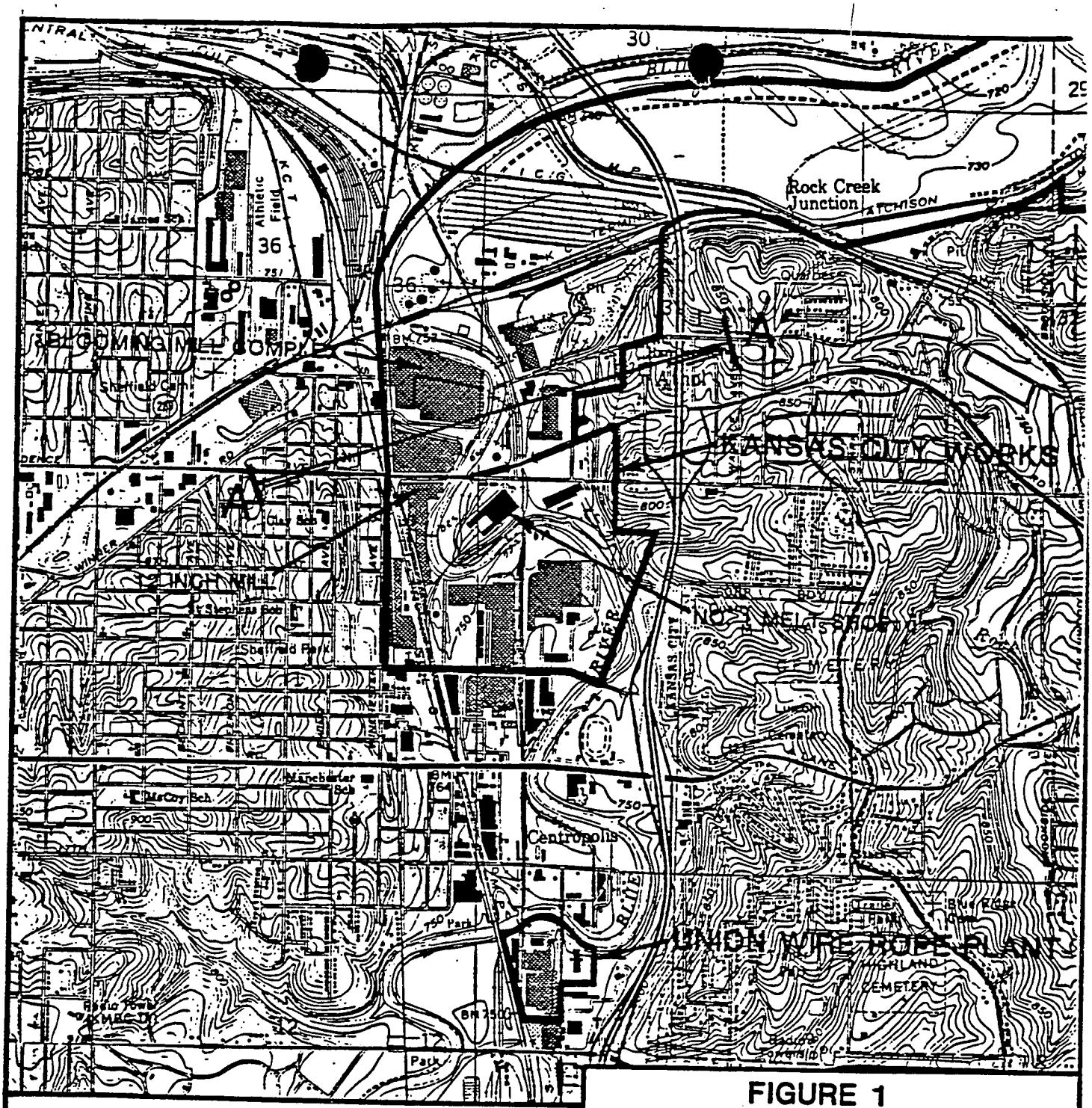
RECOMMENDATION

This decision document represents the selected removal action for the North End Site near Manchester Trafficway and the Blue River in Kansas City, Missouri. The decision document was developed in accordance with the National Contingency Plan and with CERCLA, as amended by SARA. This decision is based upon the administrative record for the site. An index to the administrative record is attached to this decision document.

It is expected that the removal will begin in May or June 1990 and be completed by October 1990. The EPA will oversee Armco's implementation of the removal, but at this point expects to conduct that oversight using Agency personnel and avoid the need for contracting.

_____
Date

_____
Morris Kay
Regional Administrator



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REFERENCE:

U.S.G.S. TOPOGRAPHIC QUADRANGLE MAP, 7.5 MINUTE SERIES, KANSAS CITY, MO-KS AND INDEPENDENCE, MO QUADRANGLES, 1974 PR. SCALE 1:24000

FIGURE 1

SITE LOCATION MAP

PREPARED FOR
ARMCO, INC.
MIDDLETOWN, OHIO

DRAWN	5/11/89 LHR	DRAWING NUMBER
CHECKED	NKC 5-11-89	89119-A1
APPROVED	LMB 5/11/89	

REMCOR

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